

### REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the following remarks is respectfully requested.

Claims 1-23 are pending in the application. No claims have been amended.

In the outstanding Office Action, receipt was acknowledged of papers submitted by the International Bureau under 35 U.S.C. §119(a)-(d); and Claims 1-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0181857 to Komatsu et al. (hereinafter Komatsu).

It is respectfully submitted that Claims 1-23 of this application are neither disclosed by nor rendered obvious by Komatsu.

Each of independent Claims 1 and 8 include recitation of two equal optical interferometer circuits accurately point-symmetrically connected in series. This recitation is neither disclosed by nor rendered obvious by Komatsu.

Specifically referring to FIG. 2 of Komatsu, it can be observed that each of the optical multiplexing/demultiplexing circuits 8 (namely, 8A, 8B, 8C) includes a single optical interferometer circuit of the Mach-Zehnder type. There is no disclosure of interferometer circuits being connected together in series in a point symmetrical type connection as stated in the Office Action. Further, there is no teaching of this feature in Komatsu. That is, there is only a single optical multiplexing/demultiplexing circuit 8 corresponding to a first optical waveguide 3 and a second optical waveguide 4 sandwiched between both a first directional coupling portion 11 and a second directional coupling portion 12.

Independent Claim 17 includes recitation of “a plurality of optical signal multiplexing and demultiplexing devices arranged in parallel to each other...having a function of multiplexing optical signals having different wavelengths input from the light input ports.” This feature is neither disclosed by nor rendered obvious by Komatsu.

Komatsu makes clear in paragraph [0077] that the purpose of the invention disclosed therein is to make the optical transmission center wavelengths of optical multiplexing/demultiplexing circuits 8 (8A, 8B, 8C) substantially identical. Komatsu further states that any shift of the optical transmission center wavelengths of the optical multiplexing/demultiplexing circuits 8 increases transmission losses of the entire circuit and the signal separation performance deteriorates. This is in contrast with the invention recited in Claim 17 including parallel multiplexing and demultiplexing devices having a function of multiplexing optical signals having different wavelengths.

It is respectfully submitted that Claims 2-7, 9-16, and 18-23 are patentable over Komatsu at least for the reasons argued above with regard to the claims from which they depend.

Accordingly, it is respectfully requested that the rejection of Claims 1-23 over Komatsu be reconsidered and withdrawn and that Claims 1-23 be allowed.

Consequently, for the reasons discussed in detail above no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.


Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.

Customer Number

**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)  
MLG/rac

  
Bradley D. Lytle  
Attorney of Record  
Registration No. 40,073

Michael L. Gellner  
Registration No. 27,256